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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/615,183	07/13/2000	Vincent H. Curley	MSFT115462	3712
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CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC 1420 FIFTH AVENUE SUITE 2800 SEATTLE, WA 98101-2347			EXAMINER TRAN, PHILIP B	
			ART UNIT 2155	PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/615,183

Applicant(s)

CURLEY ET AL.

Examiner

Philip B. Tran

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____



DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-3, 9-13, 16-18 and 21-22 are rejected under 35 U.S.C. § 102(e) as being anticipated by Rich et al (Hereafter, Rich), U.S. Pat. No. 6,457,065.

Regarding claim 1, Rich teaches a method of optimizing the synchronization of data between a client computer having a client database and a server computer having a server database (i.e., optimization for replication of objects between a client node having client database and server node having server database) [see Col. 2, Line 45 - Col. 3, Line 3], comprising :

communicating a plurality of database items (= data objects) that maintain a parent-child hierarchical tree relationship from the client computer to the server computer, wherein the plurality of database items (= data objects) includes a parent

database item (i.e., distributed computer systems form networks of nodes where each node may act as both a client and a server to the other nodes and data objects include parent/child/grandchild or successor objects) [see Col. 8, Lines 63-65 and Col. 9, Lines 5-67] ;

determining if a received parent database item (= parent object) is improperly received, wherein the determination of an improperly received parent database item (= parent object) is based upon the detection of a data transfer error that is characteristic of an error condition associated with the parent database item (= parent object) (i.e., distributing objects between nodes and determining whether committing the modifications to replicated objects will result in an unacceptable data conflict) [see Abstract and Col. 4, Lines 25-48]. Note that, data object include parent/child objects; and

selectively communicating a child database item (= child object) associated with the parent database item (= parent object) from the client computer to the server computer, only if a data transfer error that is characteristic of an error condition was not detected with respect to the parent database item (= parent object) (i.e., if no unacceptable data conflict will occur or does not detect an error condition, then the modifications to replicated objects are committed with respect to parent/child/grandchild or successor object relationship) [see Abstract and Figs. 4A-4B and Col. 4, Lines 25-64 and Col. 10, Lines 11-41 and Col. 11, Lines 20-67]; and

synchronizing the communicated child database item (= child object) with a corresponding child database item (= child object) stored on the server computer (i.e.,

optimization for replication of objects between a client node having client database and server node having server database [see Col. 2, Line 45 - Col. 3, Line 3] wherein child object (473) is in synchronized communication with corresponding child object (471) [see Fig. 4B and Col. 11, Lines 20-35]).

Regarding claim 2, claim 2 is rejected under the same rationale set forth above to claim 1. In addition, Rich further teaches assigning a status code to the parent object received at the server computer (i.e., version status of the object) [see Col. 4, Lines 55-64 and Col. 12, Lines 33-41 and Col. 16, Lines 56-65]. Note that, data object include parent/child objects.

Regarding claim 3, Rich further teaches the status code is assigned by the server computer [see Col. 12, Lines 20-26].

Regarding claim 9, claim 9 is rejected under the same rationale set forth above to claim 2. In addition, Rich further teaches the method of claim 2, wherein the object hierarchy further comprises at least one grandchild object associated with the at least one child object and the at least one parent object, the method further comprising assigning a child status code to child objects associated with the parent object received at the server computer (i.e., version status of the object) [see Col. 4, Lines 55-64 and Col. 12, Lines 20-26 and Col. 12, Lines 33-41 and Col. 16, Lines 56-65], the child status code being based upon the detection or non-detection of a data transfer error

associated with the child objects, updating a status code of grandchild objects associated with child objects associated with the parent object, the updated status code of the grandchild objects associated with a child object associated with the parent object being based on the child status codes and selectively communicating grandchild objects associated the child object associated with the parent object from the client computer to the server computer, wherein grandchild objects associated with a child object associated the parent object are communicated if the status code of the grand child objects indicate a non-detection of a data transfer error associated with the child object [see Fig. 4A and Col. 11, Line 15 - Col. 12, Line 41]. Note that, data object include parent/child/grandchild or successor objects [see Fig. 4A].

Claim 10 is rejected under the same rationale set forth above to claim 3.

Claim 11 discloses a computer-readable medium containing computer-readable instructions which, when executed by a computer, perform the method of any one of claims 2-10. Therefore, claim 11 is rejected under the same rationale set forth above to any one of claims 2-10.

Claim 12 discloses a computer-controlled apparatus for performing the method of any one of claims 2-10. Therefore, claim 12 is rejected under the same rationale set forth above to any one of claims 2-10.

Claim 13 is rejected under the same rationale set forth above to claim 2.

Claim 16 discloses a computer-readable medium containing computer-readable instructions which, when executed by a computer, perform the method of any one of claims 13-15. Therefore, claim 16 is rejected under the same rationale set forth above to any one of claims 13-15.

Claim 17 discloses a computer-controlled apparatus for performing the method of any one of claims 13-15. Therefore, claim 17 is rejected under the same rationale set forth above to any one of claims 13-15.

Claim 18 is rejected under the same rationale set forth above to claim 2.

Claim 21 discloses a computer-readable medium containing computer-readable instructions which, when executed by a computer, perform the method of any one of claims 18-20. Therefore, claim 21 is rejected under the same rationale set forth above to any one of claims 18-20.

Claim 22 discloses a computer-controlled apparatus for performing the method of any one of claims 18-20. Therefore, claim 22 is rejected under the same rationale set forth above to any one of claims 18-20.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 4-8, 14-15 and 19-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rich et al (Hereafter, Rich), U.S. Pat. No. 6,457,065 in view of Nori et al (Hereafter, Nori), U.S. Pat. No. 6,108,664.

Regarding claims 4-5, Rich does not explicitly teach the server assigns ID to the database item (= data object). However, Rich does suggest the sever assigns status code such as version status of the objects as disclosed above in claim 3 [see Col. 4, Lines 55-64 and Col. 12, Lines 20-26 and Col. 12, Lines 33-41 and Col. 16, Lines 56-65]. Nori, in the same field of data objects distribution in the database, discloses the concept of object ID assigned by the server [see Abstract and Col. 8, Lines 53-60]. It

would have been obvious to one of ordinary skill in the art at the time of the invention was made to assign ID to data objects in order to distinguish different types of data objects.

Regarding claim 6, Rich does not explicitly teach updating ID of the database item (= data object). However, Rich does suggest replication or updating the data object and the child data object [see Col. 11, Line 15 - Col. 12, Line 41]. Nori, in the same field of data objects distribution in the database, discloses the concept of object ID assigned by the server [see Abstract and Col. 8, Lines 53-60 and Col. 13, Lines 13-20]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to assign ID to data objects and updating objects ID because it would have enable to distinguish different types of data objects and thus synchronize objects in the two databases.

Claims 7-8 are rejected under the same rationale set forth above to claims 4-5

Claim 14 is rejected under the same rationale set forth above to claim 6.

Claim 15 is rejected under the same rationale set forth above to claim 7.

Claim 19 is rejected under the same rationale set forth above to claims 4-5.

Claim 20 is rejected under the same rationale set forth above to claim 7.

Response to Arguments

5. Applicant's arguments have been fully considered but they are not persuasive because of the following reasons:

Rich teaches a method of optimizing the synchronization of data between a client computer having a client database and a server computer having a server database. That is, optimization for replication of objects between a client node having client database and server node having server database [see Col. 2, Line 45 - Col. 3, Line 3], comprising communicating a plurality of data objects that maintain a parent-child hierarchical tree relationship from the client computer to the server computer, wherein the plurality of data objects includes a parent object. For example, distributed computer systems form networks of nodes where each node may act as both a client and a server to the other nodes and data objects include parent/child/grandchild or successor objects [see Col. 8, Lines 63-65 and Col. 9, Lines 5-67].

In addition, Rich further teaches determining if a received parent object is improperly received, wherein the determination of an improperly received parent object is based upon the detection of a data transfer error that is characteristic of an error condition associated with the parent object. That is, distributing objects between nodes and determining whether committing the modifications to replicated objects will result in an unacceptable data conflict [see Abstract and Col. 4, Lines 25-48]. Note that, data objects hierarchical tree relationship include parent/child/grandchild/successor objects. Moreover, Rich teaches selectively communicating a child object associated with the parent object from the client computer to the server computer, only if a data transfer

error that is characteristic of an error condition was not detected with respect to the parent object. For example, if no unacceptable data conflict will occur, then the modifications to replicated objects are committed with respect to parent object/child object/grandchild/successor relationship [see Abstract and Figs. 4A-4B and Col. 4, Lines 25-64 and Col. 10, Lines 11-41 and Col. 11, Lines 20-67]. Also, Rich does suggest the sever assigns status code such as version status of the objects [see Col. 4, Lines 55-64 and Col. 12, Lines 20-26 and Col. 12, Lines 33-41 and Col. 16, Lines 56-65].

Note that the distributed computer systems, in Rich, form networks of nodes where each node may act as both a client and a server to the other nodes and data objects tree includes parent/child/grandchild/successor hierarchical relationships [see Fig. 4A and Col. 8, Lines 63-65 and Col. 9, Lines 5-67 and Col. 10, Lines 11-41 and Col. 11, Lines 20-67].

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642F. 2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F. 2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicant obviously attacks references individually without taking into consideration based on the teaching of combinations of references as shown above. With respect to Rich, applicant seems to argue points the examiner has already construed Rich does not explicitly teach while restricting the arguments on the Rich/secondary reference combined to arguments of no motivation.

Rich does suggest the sever assigns status code such as version status of the objects [see Col. 4, Lines 55-64 and Col. 12, Lines 20-26 and Col. 12, Lines 33-41 and Col. 16, Lines 56-65]. Nori, in the same field of data objects distribution in the database, discloses the concept of object ID assigned by the server [see Abstract and Col. 8, Lines 53-60 and Col. 13, Lines 13-20]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to assign ID to data objects and updating objects ID because it would have enable to distinguish different types of data objects and thus synchronize objects in the two databases.

Therefore, the examiner asserts that the cited prior arts do teach or suggest the subject matter recited in independent claims. Dependent claims are rejected at least by virtue of their dependency on independent claims and by other reasons set forth above. Accordingly, rejections for claims 1-22 are respectfully maintained.

6. A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS ACTION IS SET TO EXPIRE THREE MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION. FAILURE TO RESPOND WITHIN THE PERIOD FOR RESPONSE WILL CAUSE THE APPLICATION TO BECOME ABANDONED (35 U.S.C. § 133). EXTENSIONS OF TIME MAY BE OBTAINED UNDER THE PROVISIONS OF 37 CAR 1.136(A).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tran whose telephone number is (571) 272-3991. The Group fax phone number is (703) 872-9306. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar, can be reached on (571) 272-4006.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Philip Tran

Philip B. Tran
Art Unit 2155
September 16, 2005